

KTD



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,498	05/30/2000	Shinya Kamimura	925-143	8341
23117	7590	03/13/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			AGGARWAL, YOGESH K	
			ART UNIT	PAPER NUMBER
			2615	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 09/580,498	Applicant(s) KAMIMURA ET AL.	
	Examiner Yogesh K. Aggarwal	Art Unit 2615	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 February 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-3.
Claim(s) withdrawn from consideration: 4.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____



DAVID OMETZ
SUPERVISORY PATENT EXAMINER

Art Unit: 2615

Examiner's response:

1. Applicant argues with regards to claim 1 that both Tokumitsu and Hoopman fail to disclose the combination of (a) center offset and (b) larger size of the light-focusing parts moving toward the peripheral region. **The Examiner respectfully disagrees.**

Tokumitsu clearly discloses a solid-state image sensor used inherently in devices like cameras or other imaging devices (figure 3), which comprises a plurality of light-receiving parts (pixels 3a-0, 3b-0 etc.) arranged at a constant interval on a substrate surface and a plurality of light focusing parts (microlenses 1a-0, 1b-0, 1a-1 etc.) disposed corresponding to each of the plurality of the light-receiving parts on the substrate surface (11) so that the incident light is focused on the light receiving parts (col. 3 lines 54-64). Tokumitsu further teaches that the distances da_1 - da_3 (offset amounts) corresponding to the center of the microlenses 1a-1 through 1a-3 and pixels in the peripheral ends are determined to increase at a predetermined rate as the pixels become distant from the center towards the periphery (col. 3 line 65-col. 4 line 47, figure 3).

Hoopman clearly teaches that the desired lens radius, R_s , may vary across the array e.g, it may be shorter toward the center of the array than at the periphery (col. 9 lines 22-25). Therefore the size of the microlenses (size of a microlens is dependent upon the radius, as the radius increases the size of the microlens increases and vice-versa) along the substrate surface in the lateral direction becomes gradually larger, as the location of the microlens is getting closer to the peripheral region from the middle camera region. Hoopman thus uses increased focal length along with increasing radius (increasing the size of the microlenses) in order to counteract the

Art Unit: 2615

lack of focusing occurring at the periphery (See col. 3 lines 33-53 and col. 4 lines 3-15 and also col. 9 lines 22-25).

Therefore Tokumitsu and Hoopman clearly disclose the combination of (a) center offset and (b) larger size of the light-focusing parts moving toward the peripheral region.

2. Applicant argues that there is nothing in the art of record which would have caused one of ordinary skill in the art to have done both (a) and (b) in a particular device. Both Tokumitsu and Hoopman perform their modification to correct the same problem. In other words, Tokumitsu performs center offset to correct the focal length problem, and Hoopman performs size adjustment to cure this same focal length problem. Once the problem has been solved once, one of ordinary skill in the art would not have tried to solve it again because this would be duplicative and unnecessary. **The Examiner respectfully disagrees.**

The test whether two references can be combined is not if the two references teach to correct the same problem, rather if the proposed modification or combination of the prior art changes the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)[See MPEP 2143.01 (VI)]. In this case, both Tokumitsu and Hoopman try to solve the same problem i.e. the lack of brightness at the periphery (“shading” in Tokumitsu, See col. 1 lines 22-27). Therefore the proposed modification or combination of the prior art does not change the principles of operation of the prior art invention being modified.

3. Finally, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to

Art Unit: 2615

combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)]. (See MPEP 2143).

In this case, Hoopman explicitly teaches that by selecting desired lens radius, R_s , [In this case R_s is shorter toward the center than at the periphery] **an optimum performance for the array as a whole is achieved (col. 9 lines 26-28) leading to improved performance**. Therefore there is explicit motivation in the reference themselves (Hoopman) to modify the reference or to combine reference teachings. [The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)].

Second, by correcting the focus problems at the periphery, Hoopman teaches that brightness levels at the periphery will be improved. With Tokumitsu also seeking to improve brightness levels at the periphery by varying the center offset, one of ordinary would have had a **reasonable expectation** that in combining the theories of Hoopman and Tokumitsu would have **led to an even greater increase in brightness at the periphery than either one alone**.

Third, as explained above in Paragraphs 2 and 3, both Tokumitsu and Hoopman both teach the required claim limitations.

Thus the three basic criteria required to establish a prima facie case has been met.

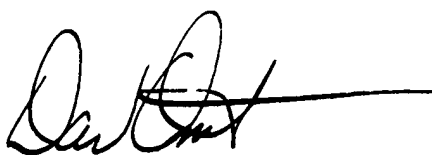
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YKA
March 3, 2006



DAVID OMETZ
SUPERVISORY PATENT EXAMINER